

**UKRAINE'S MEMBERSHIP
OF THE EU:
TOGETHER WE ARE BETTER,
GREENER, MORE RESILIENT
AND SUSTAINABLE**



Resource & Analysis Center
"SOCIETY AND ENVIRONMENT"



INTERNATIONAL
RENAISSANCE
FOUNDATION

In Brief: Key Advantages for the EU from Ukraine's Membership

Both Ukraine and the EU citizens will benefit from Ukraine's accession to the EU. The Ukraine's membership will make the EU more secure, democratic and greener, while shared values lay a basis for building a common space.

We can make each other better, greener, more resilient and sustainable

Ukraine's accession means enhancing EU's capacity through getting access to resources or natural capital (lithium, hydrogen, biodiversity, forests, soil) or opening new markets (market for green goods and services, investments). It is also about strengthening human capacity (Euro optimism, shared values and visions, creating green jobs). Ukraine already shares many EU strategic goals in the area of climate change, sustainable transport, digitalization, and agriculture, as well as demonstrates achievements in certain areas.

UKRAINE WILL BOOST GREEN TRANSITION IN THE EU



Ukraine has a huge potential and resources to intensify the green transition of the EU in agriculture and industry: from organic production and reduction of chemical pollution to green steel and batteries.

UKRAINE AND THE EU SHARE A COMMON GOAL OF DIGITAL TRANSITION

Ukraine and the EU share digital future. Together, we shall speed up and facilitate digital transition. We have the same goals. EU and Ukraine already have their achievements and advantages that would empower each other in the process of twin transition (green and digital).



UKRAINE WILL REINFORCE THE EU IN ACHIEVING ITS STRATEGIC GOAL OF CLIMATE NEUTRAL EUROPE BY 2050

Ukraine has reduced greenhouse gas emissions by 63% compared to 1990, which is higher than the EU interim goal for 2030 (55%). Post-war green recovery and reconstruction of Ukraine will help achieve climate neutrality on the continent. Ukraine has a potential for decarbonization of economy in traditional sectors (such as energy efficiency in construction industry), and in new sectors alike (such as hydrogen economy). Ukraine's membership will create additional opportunities for the decarbonization of the energy sector of the EU and of Ukraine, especially in the electricity generation.



UNIQUE ECOSYSTEMS OF UKRAINE WILL ADD TO BIODIVERSITY OF THE EUROPEAN UNION

Ukraine has a large potential to amplify diversity of populations, ecosystems, and species in the EU. Ukraine's accession to the EU will mean diversification, more protected areas, forests, and valuable ecosystems, and also the possibility to enhance the protection efforts at the EU and global levels.



UKRAINIAN PEOPLE AND EU CITIZENS SHARE COMMON ENVIRONMENTAL VALUES

Environment protection is equally important for EU citizens and for Ukrainian people. It testifies to a common values space and integration of Ukrainian people into European community. Civil society of Ukraine active in environmental protection and climate change will become an important driver for promoting green reforms at the EU level.



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Ukraine will boost the green transition in the EU

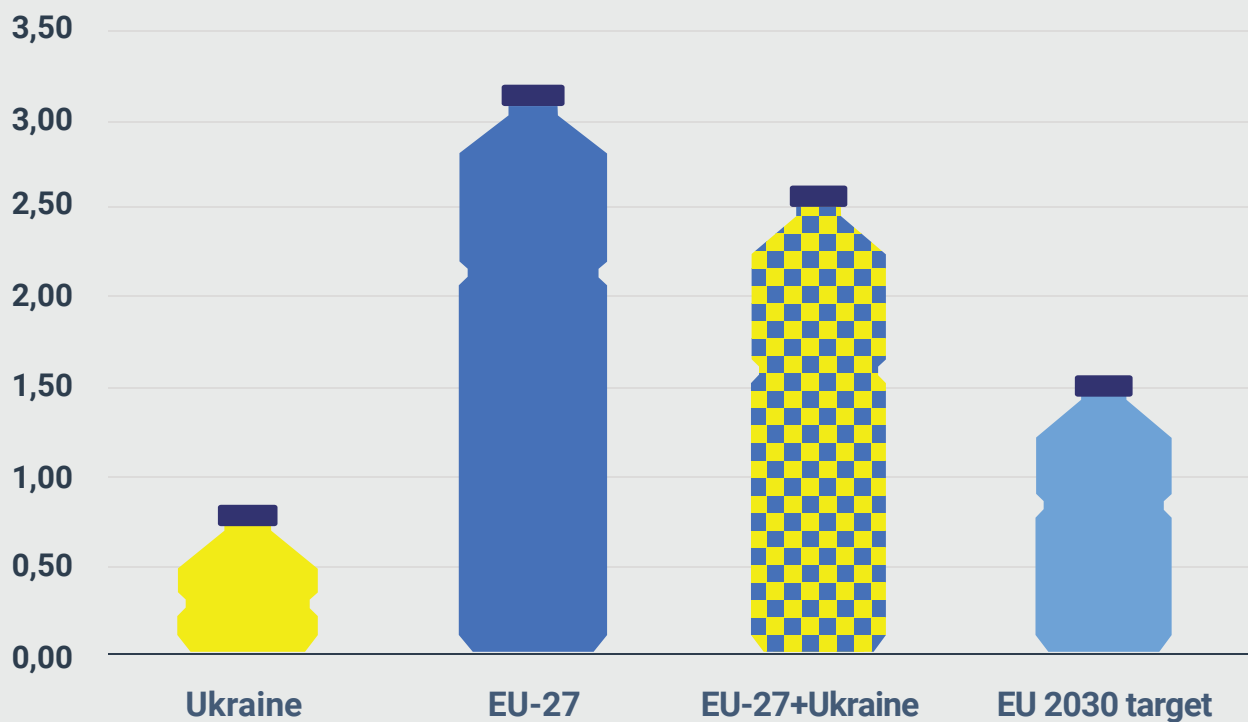
Ukraine has a huge potential and resources to boost the green transition of the EU in agriculture and industry: from organic production and reducing chemical pollution to new opportunities for green steel and batteries.



Despite potential discrepancies between Ukraine and some EU member states on **agriculture** in the context of the EU enlargement, Ukraine has a huge potential and possesses the necessary resources to strengthen food security of the EU and green transformation of the food system. The very fact of Ukraine's joining the EU will have a positive impact on the achievement of the main European goals in the field of reducing chemical pollution from the use of pesticides (by 17.5%) and mineral fertilizers (by 10%), and will significantly increase the available capacity for organic production (by 468,000 hectares).

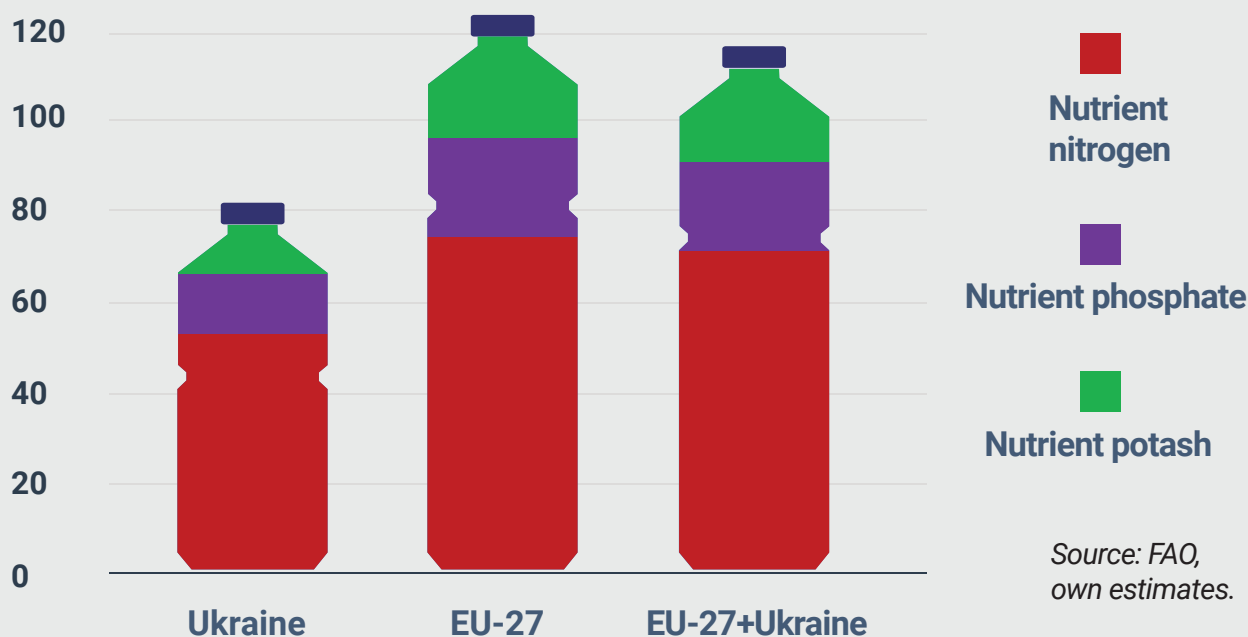


USE OF PESTICIDES IN 2021 (kg/ha)



Source: FAO, own estimates.

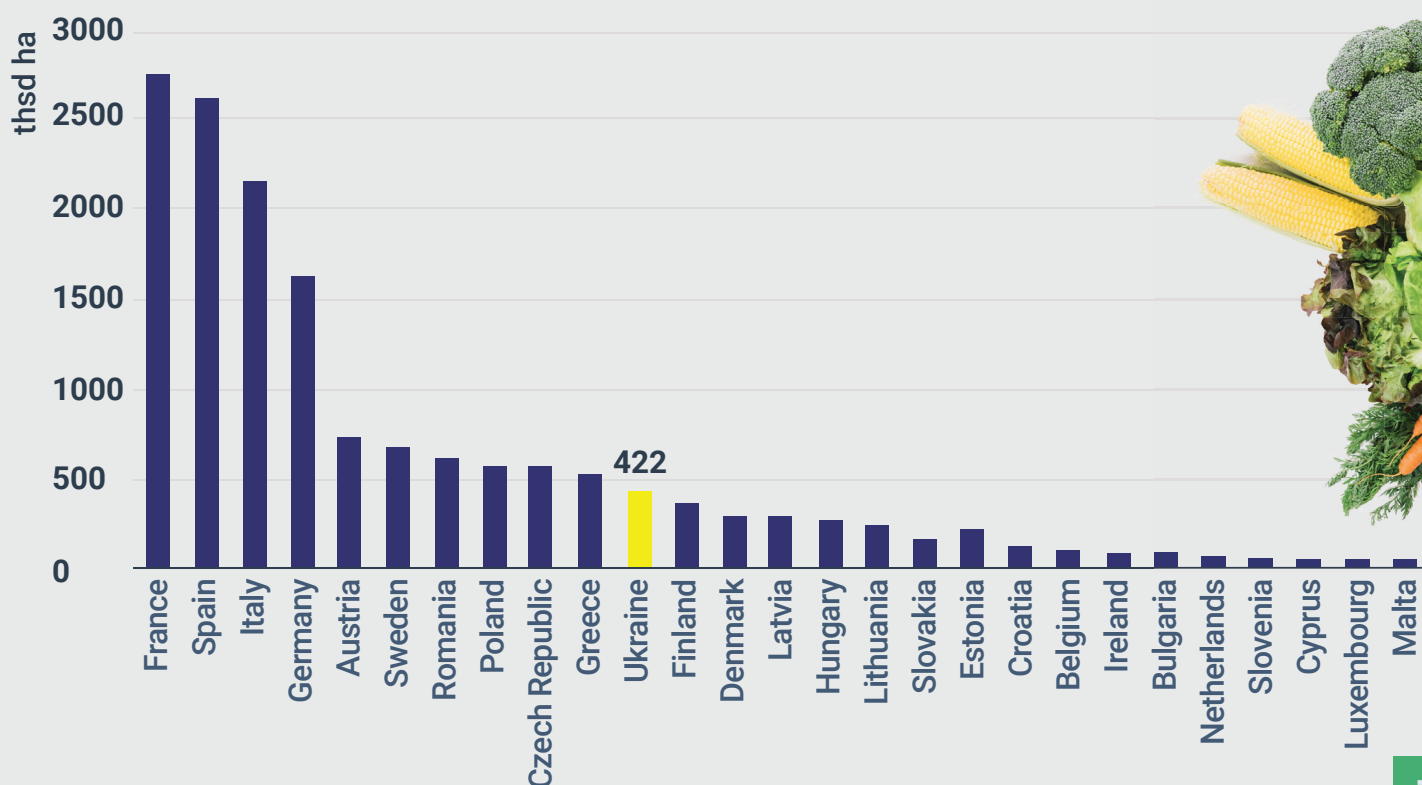
USE OF MINERAL FERTILIZERS IN 2021 (kg/ha)



In 2021 the use of pesticides and mineral fertilizers in Ukraine was much lower than the EU average: pesticides – 4 times less, nitrogen and phosphate fertilizers – almost 1.5 times less, potassium fertilizers – twice less. In addition, Ukraine has a huge potential to enhance food security in the EU due to significant resources of agricultural lands, such as rich black soil, and opening the land market for those lands.

Although the share of lands under organic production is rather low (ab. 1%) Ukraine would have ranked 12th in the EU today by the total area used under organic farming. Achieving the current national goal (1.3 million ha by 2030) would place Ukraine on the 5-top list among the EU member states by total area of lands under organic farming.

LAND AREA UNDER ORGANIC FARMING



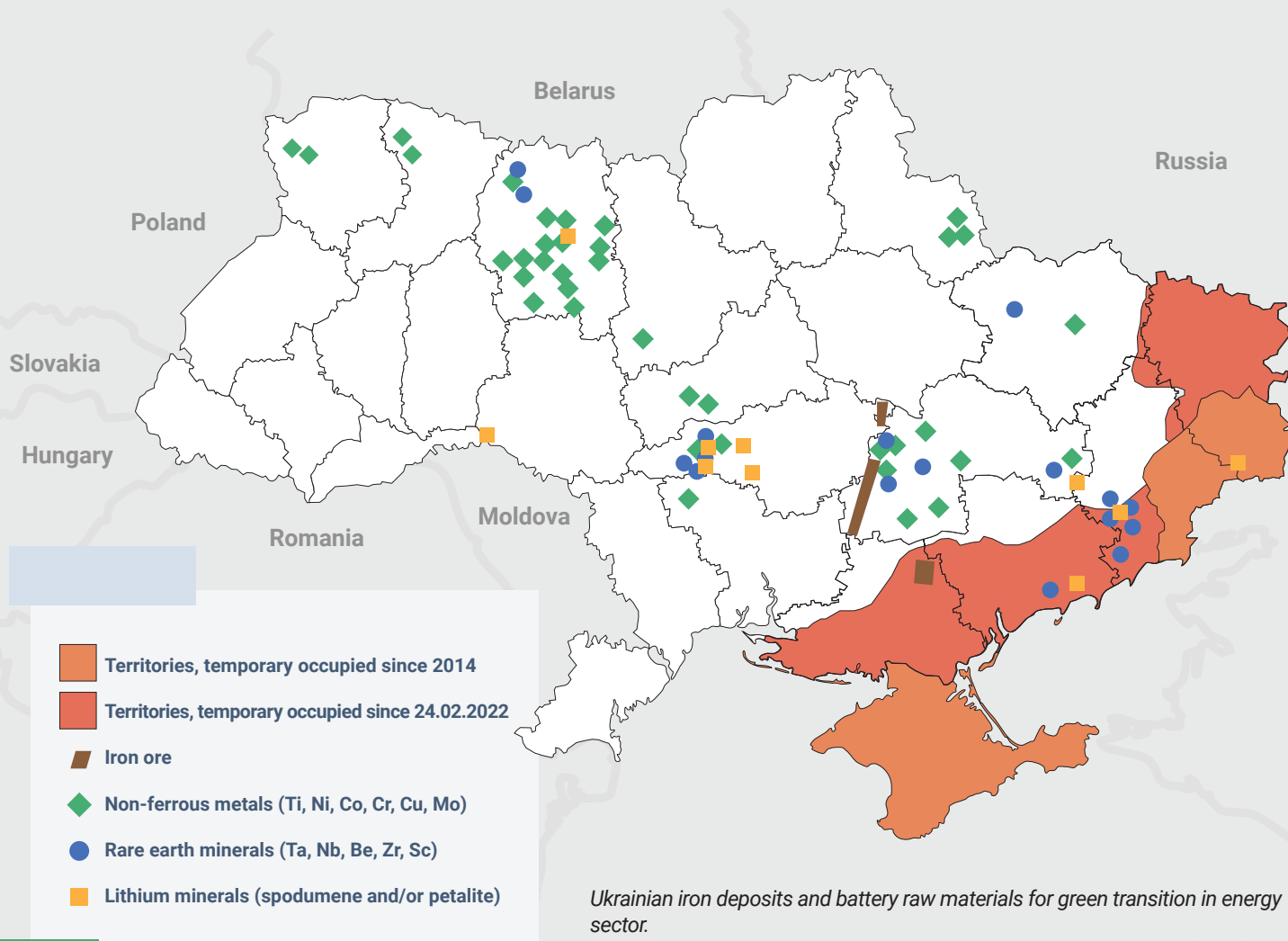
Source: Eurostat, Ministry of Agrarian Policy and Food of Ukraine (2022).

Ukraine has abundant natural resources and industrial potential to speed up the green transition in **industry** and enhance the European Union industrial autonomy.

Before the Russian invasion, Ukraine had been among top countries in extraction (production) of several minerals: the 3rd largest producer of gallium (1.3% of global output) and rutile (12.3% of global output), the 5th largest producer of titanium sponge (4.4% of global output) and graphite (2.2% of global output), the 7th largest extractor of magnesium ores (4.2% of global output) (USGS, 2022).

Ukraine has deposits of critical raw materials that may be instrumental for green transition. Ukraine used to be in the top three key suppliers of high quality iron ore (along with Canada and Brazil). It is one of the world's largest suppliers of purified neon required for the semiconductors production (JRC, 2023). Deposits of lithium and graphite allow to provide for the manufacturing of anodes and cathodes of lithium-ion batteries with the capacity of over 1,000 GW*hrs (Ukrainian Geological Service, 2023).

A huge potential of renewables in the east and south of Ukraine, as combined with the large iron ore fields, may be used for the creation of a new industrial ecosystem for the production of green steel, including with the use of hydrogen.



Ukrainian iron deposits and battery raw materials for green transition in energy sector.

Source: Blum, U., Borg, G., Kropp, N., Liventseva, H. and Rozhkova, I. (2023) Die Rohstoffe der Ukraine und ihre strategische Bedeutung – eine geopolitische Analyse. SIRIUS – Zeitschrift für Strategische Analysen, Vol. 7 (Issue 3), pp. 257-276.

Ukraine will support the EU in achieving **the strategic goal of climate neutrality by 2050**

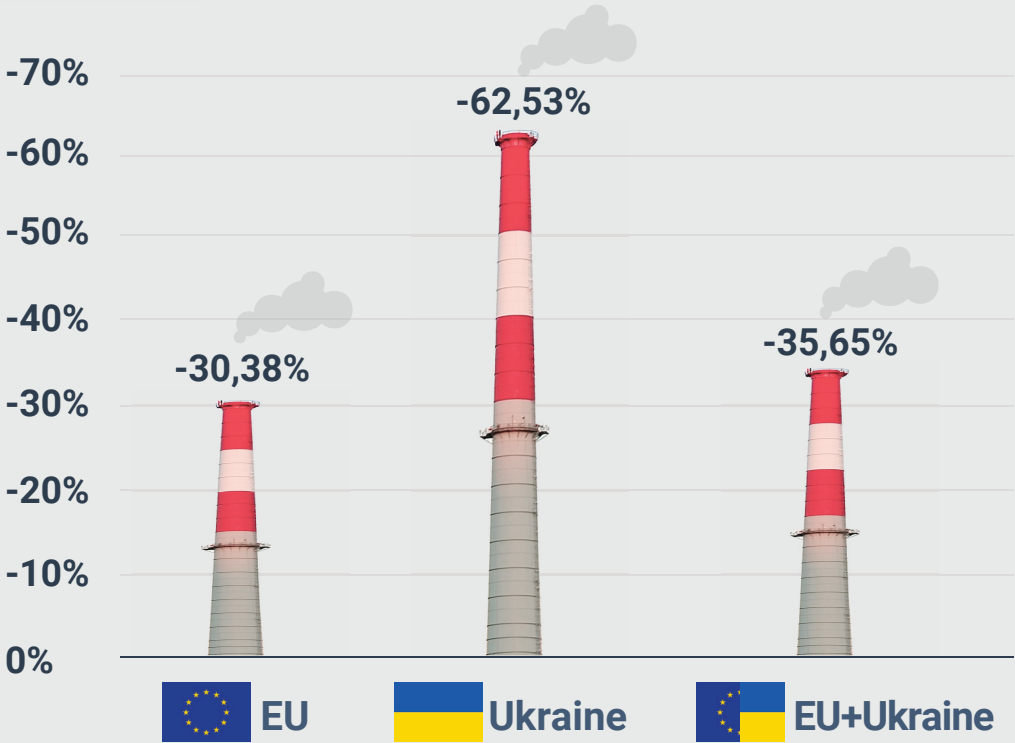
Ukraine has reduced greenhouse gas emissions by 63% compared to 1990, which is more than the EU interim goal for 2030 (55%). Post-war green recovery and reconstruction of Ukraine will help achieve climate neutrality of the continent. Ukraine has a potential for decarbonization of economy in traditional sectors (such as energy efficiency in construction), as well as in new sectors (such as hydrogen economy). Ukraine's membership will create additional opportunities for the decarbonization of the energy sector of the EU and of Ukraine, especially in the electricity generation.



In 2021, the total greenhouse gas emissions in Ukraine (including LULUCF sector) were 341 489.13 thousand tonnes of CO₂-e, which means the 62.53% reduction compared to 1990. If Ukraine were an EU member-state, the reduction of greenhouse gas emissions in the EU today would have been 35.65% (which is 5.27% more than 30.38% the EU achieved without Ukraine in 2021).

Future post-war green recovery, reconstruction, and development of Ukraine based on “build back better” and “build back greener” principles will allow to increase the performance and contribution of Ukraine into European Union’s goal of climate neutrality. The key sectors that are sources of greenhouse gas emissions maintain a huge economically sound potential for the reduction of such emissions.

GREENHOUSE GASES EMISSIONS REDUCTION (% in 2021 to 1990)

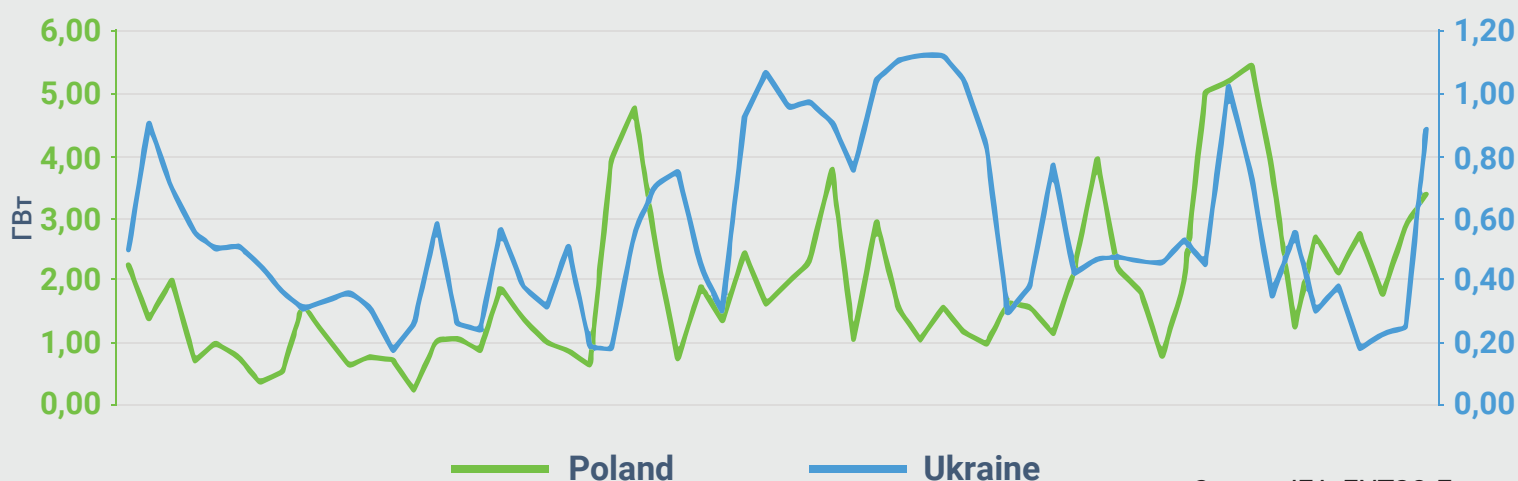


Source: UNFCCC (2021), own estimates

Ukraine has a huge potential of renewable energy such as solar, wind, and biomass. Climate features in the south of Ukraine and their differences with other countries from Central and Eastern Europe create unique opportunities to increase the RES share in the EU electricity generation. One example is wind energy sector, where differences in daily and hourly generation are substantial, creating opportunities for mutually beneficial trade and increase of RES share in general.

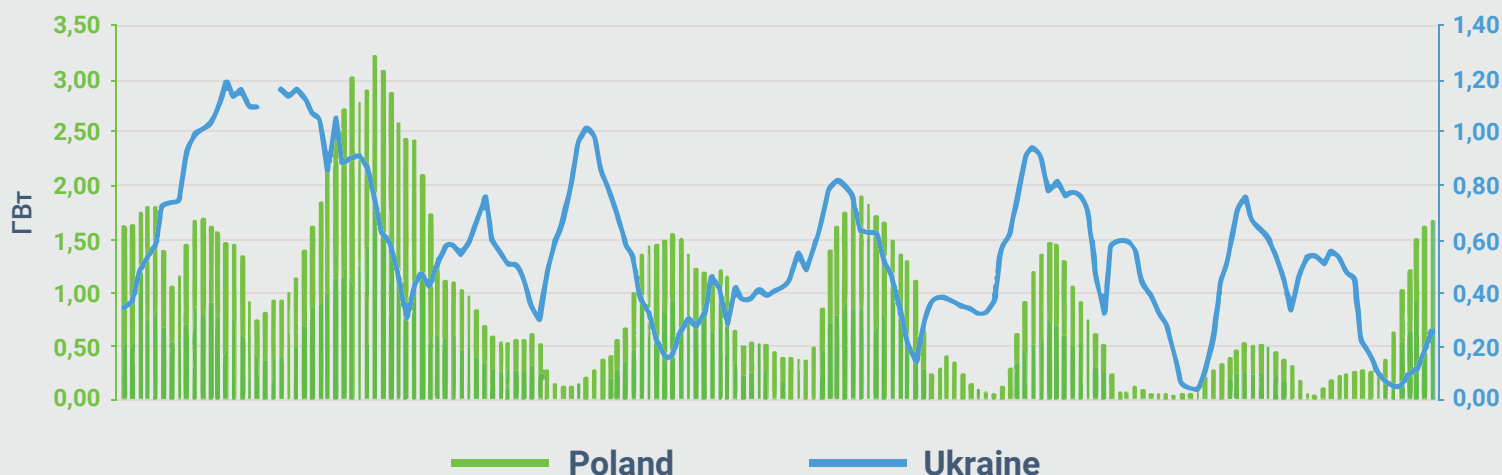


WIND ELECTRICITY GENERATION, DAILY 1.09-30.10 2021



Source: IEA, ENTSO-E.

WIND ELECTRICITY GENERATION, HOURLY, 2-8.09.2021



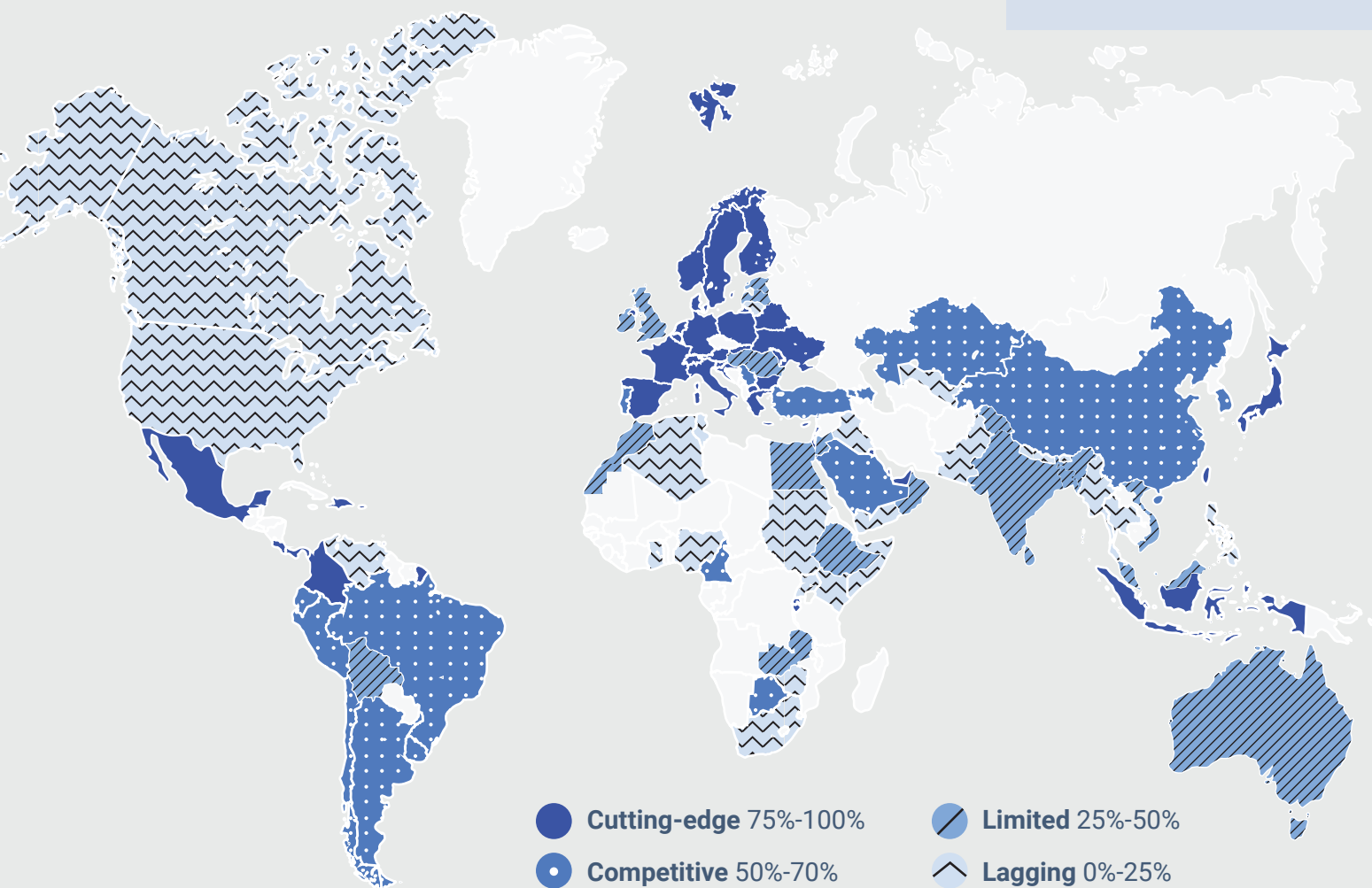
Source: IEA, ENTSO-E.

Ukraine and the EU share a common goal of digital transition

Ukraine and the EU share digital future. Together, we can speed up and facilitate digital transition. We have common goals. EU and Ukraine already have their achievements and advantages that would empower each other in the process of twin transition (green and digital).



Today, Ukraine is already one of the leaders in the provision of digital services, in digital education and awareness, digital skills of population, and in the creation of elements of digital economy. According to Coursera, Ukraine holds a high 15th position in the global ranking of digital skills (Global Skills Report 2023). Over 2022, the use of government e-services has grown from 60% to 63%, and since 2020, the increase is from 53% to 63% (UNDP, 2023). The government has ambitions to achieve 10% share of ICT in GDP.



43%
Women Learners

48%
Learning on Mobile

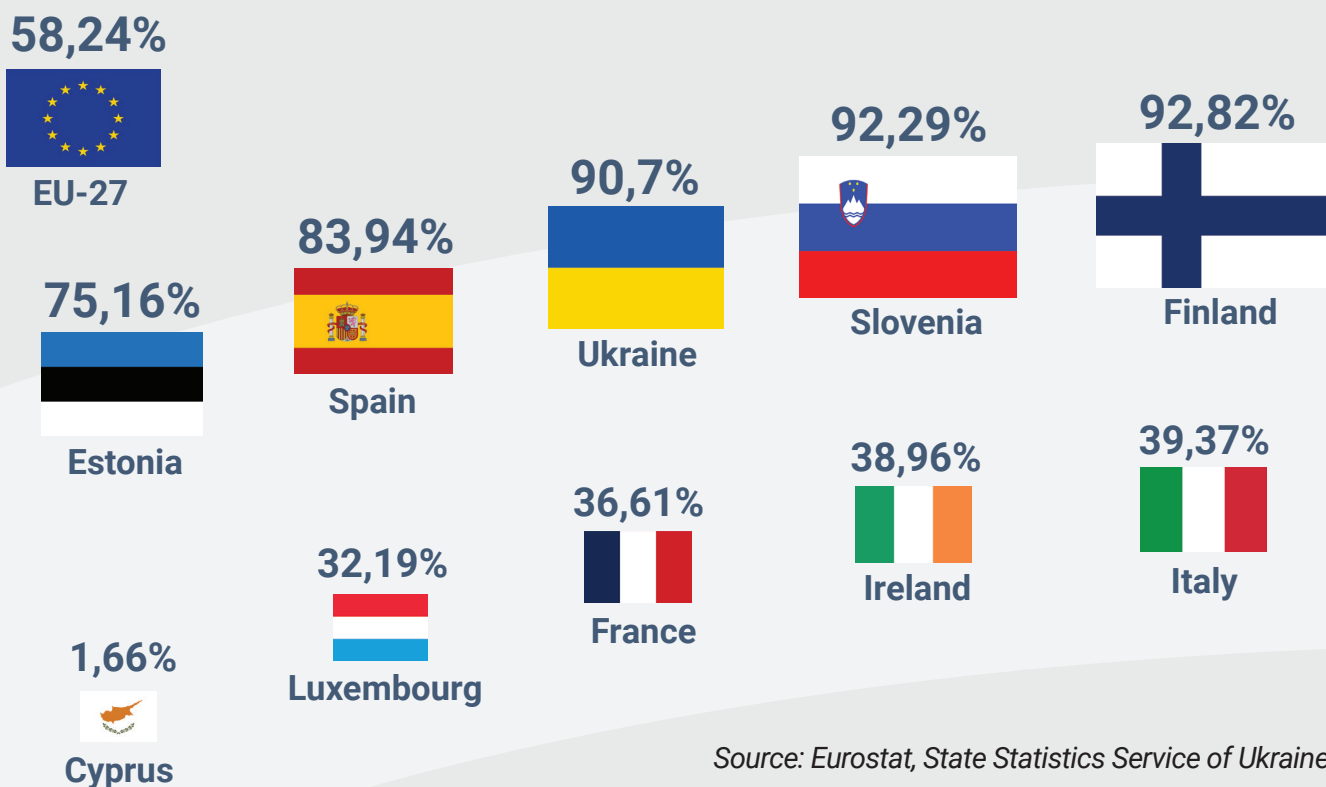
75%
Internet Access

33
Median Age

46%
Professional Certificate
Enrollement Growth

*Coursera. Global Skills Report 2023
Global Overview*

SHARE OF HOUSEHOLDS WITH BROADBAND MOBILE CONNECTION (2021)



Source: Eurostat, State Statistics Service of Ukraine

Broadband mobile Internet connection is available in 90.7% of Ukraine's households (vs 58.24% in the EU), and landlines are available in 72.3% of households (in the EU the share is 77.83%).

According to the Ministry of Digital Transformation, 52% Ukrainians have digital skills on basic level and above (56% in the EU), and as few as 11.2 % do not have any such skills (reduction by 1.42 mln persons as compared with 2019).

Diia.City (special legal regime and a platform for tech companies) has 414 resident companies, and over 34,000 specialists.

The Diia App (where people can receive certain public services) is used by 18 mln citizens of Ukraine, and it has already been used in Estonia to create a mRiik application.

Unique ecosystems of Ukraine **will add to the biodiversity of the European Union**

Ukraine has a large potential to amplify populations, ecosystems, and species diversity in the EU. Ukraine's accession to the EU will mean diversification, protecting more vulnerable areas, forests, and valuable ecosystems, and also the possibility to enhance the protecting efforts at the EU and global levels.



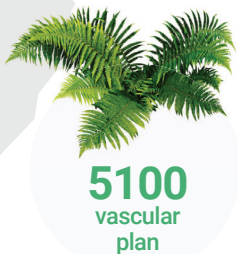
Ukraine's biota has over 74,000 species. Of them, flora includes over 27,000 (5,100 vascular plant species), and over 12,000 species of fungi. The fauna of Ukraine has over 45,000 species, including over 35,000 insects, almost 3,500 other arthropods, 1,800 protozoans, 1,600 threadworms, 1,280 of flatworms, and 440 annelids, over 270 species and subspecies of fish and round-mouthed fishes, 22 species of amphibians, about 25 species of reptiles, over 430 bird species, and about 120 species of mammals. Ukraine covers less than 6% of Europe's territory but hosts about 35% of its biodiversity in populations (Ministry for the Protection of Environment and Natural Resources of Ukraine, 2021).

UKRAINE'S BIOTA

74 th.
species

Flora
27 th. species

Fauna
45 th. species

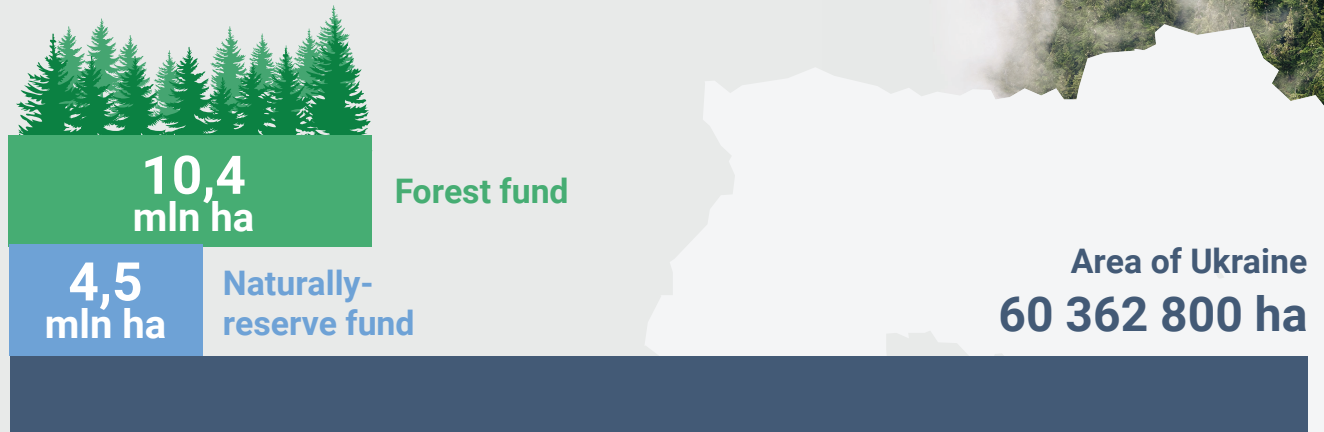


Ukraine covers less than 6% of Europe's territory but hosts about 35% of its biodiversity in populations

Source: Ministry for the Protection of Environment and Natural Resources of Ukraine, 2021

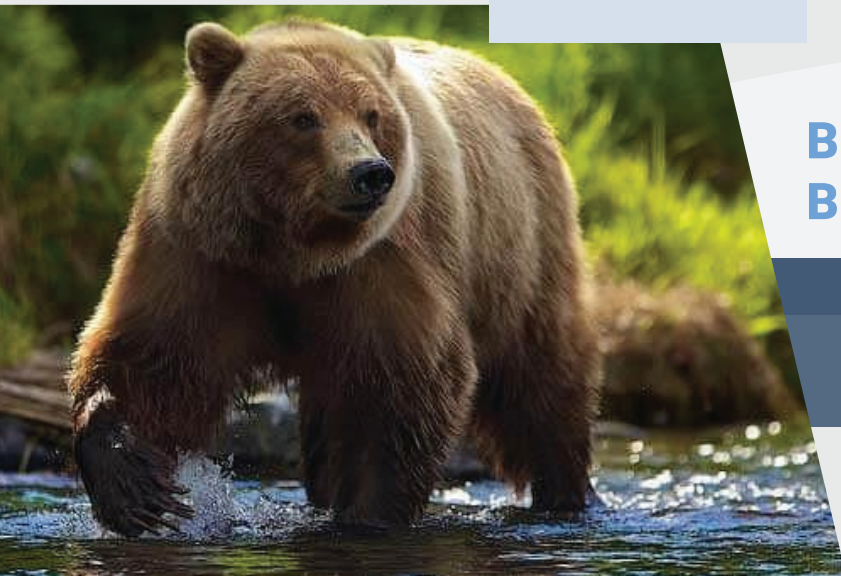
Forest area share in Ukraine is 15.9%. The total area of forests of Ukraine is 10.4 mln ha. The protected areas, as of the end of 2021, cover 4.5 mln ha (State Statistics Service of Ukraine, 2022).

FOREST AREA IN UKRAINE



25% of the cross-border site “Ancient and Primeval Beech Forests of the Carpathians and Other Regions of Europe” are located in Ukraine (Ministry for the Protection of Environment and Natural Resources of Ukraine, 2021).

Source: Carpathian Biosphere Reserve



BROWN BEAR

268

15-16 th. in the EU

in Ukraine

WOLF

13-14 th. in the EU

2000

in Ukraine



EURASIAN LYNX

423

7-8 th. in the EU

in Ukraine



Ukraine is internationally important for wild birds: 434 species, 18 bird species under the threat of extinction, 19 species with over 15% of the European population residing in Ukraine (BirdLife International, 2022).

LIST OF BIRD SPECIES WITH OVER 25% OF EUROPEAN POPULATION RESIDING IN UKRAINE



Slender-billed gull

60.36%



Mediterranean gull

43.41%



Sandwich tern

38.82%



Saker falcon

35.02%



Little crane

31.91%



Aquatic warbler

30.48%



Purple heron

27.20%



Caspian gull

25.53%

Source: BirdLife International (2022).

Ukraine will also reinforce the provision of ecosystem services within the EU, such as pollination. Pollination is one of the most essential ecosystem services critical for food security of the mankind, and for the functioning of natural ecosystems. It is primarily about feral bees, that are over 20,000 species in the world. About 2,500 of them are found in Europe, and 900 are in Ukraine (UNCG, 2020).

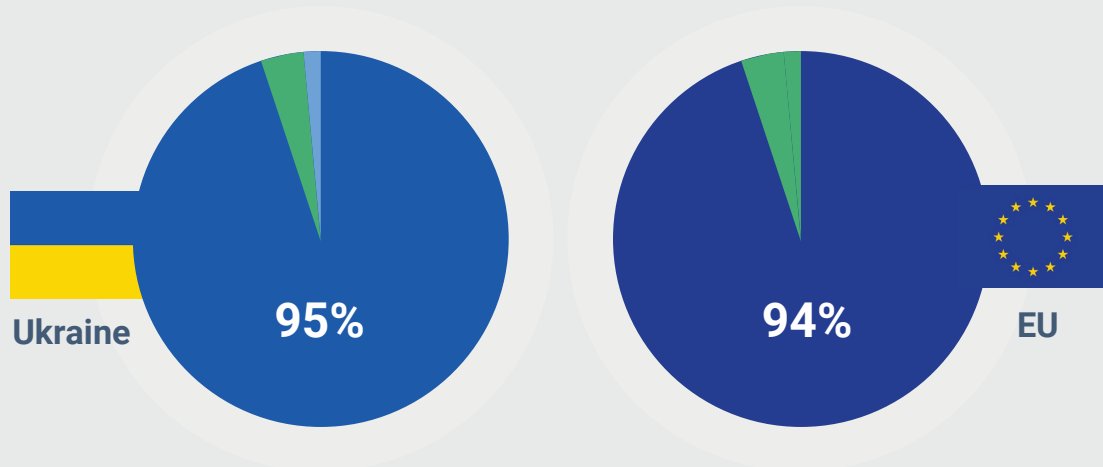
Ukrainians and EU citizens **share common environmental values**

Environmental protection is equally important for both EU citizens and Ukrainians. This testifies to a shared value space and effective integration of Ukrainians into the European community. The active civil society of Ukraine, working in the field of environment and climate change, will become an important locomotive for the promotion of green reforms at the level of the European Union.



95% of Ukrainian people find environment protection personally important, as 94% Europeans do.

HOW IMPORTANT IS ENVIRONMENT PROTECTION TO YOU PERSONALLY?



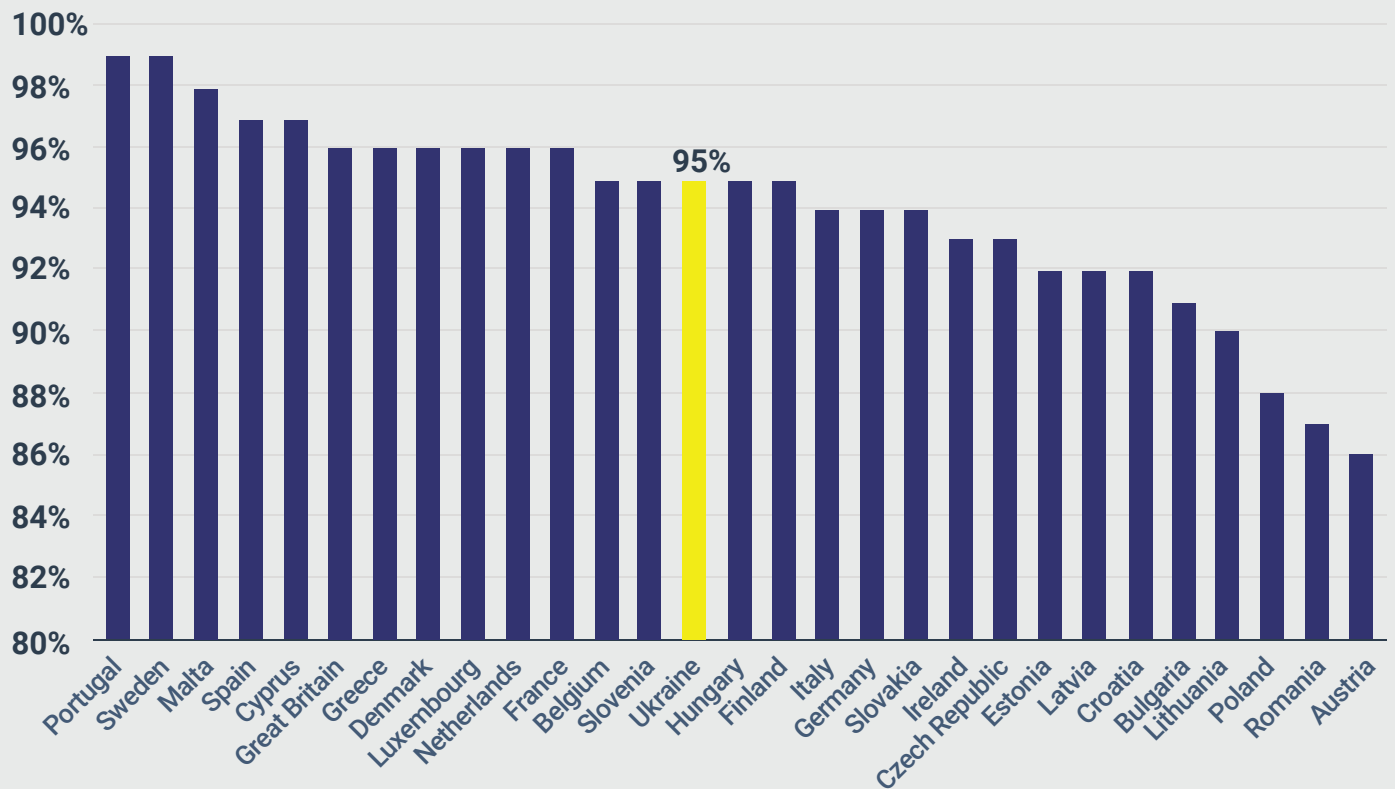
- Important
- Not important
- Hard to answer

Source: Eurobarometer (2019),
Resource and Analysis Center "Society and Environment" (2023)

The share of people who believe that environment protection is very important or rather important for them personally is different in EU member states – from 99% in Portugal and Sweden to 86% in Austria. The response level in Ukraine (95%) is similar to Belgium, Slovenia, and Finland.



IMPORTANCE OF ENVIRONMENT PROTECTION: UKRAINE AND EU MEMBER-STATES

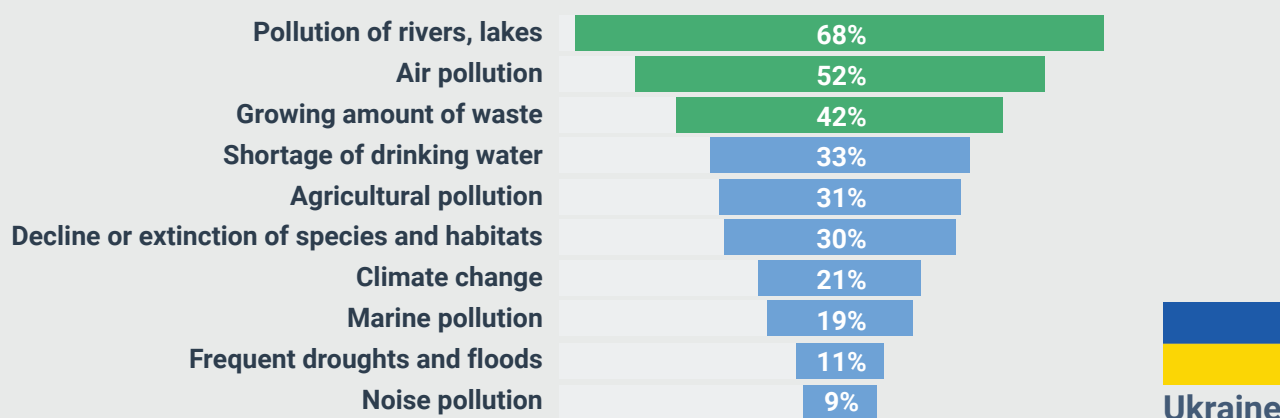


Source: Eurobarometer (2019),
Resource and Analysis Center "Society and Environment" (2023)

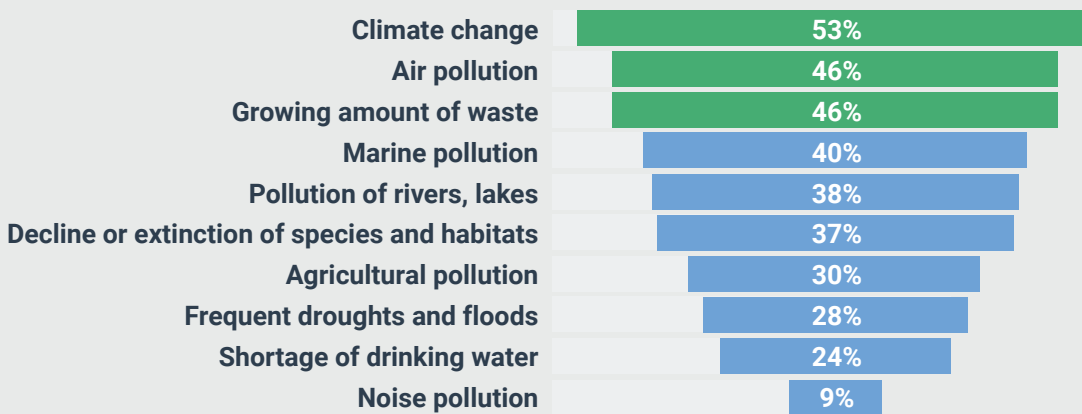
Citizens of Ukraine and the EU consider that climate change is a serious problem. Nine out of ten respondents during a survey confirmed it (93% in the EU, and 91% in Ukraine). Almost eight out of ten respondents in the EU (78%) believe that climate change is a very big problem, and 15% believe it a rather big problem.

Ukrainians and Europeans also have the same vision about such environmental issues as air pollution (second most important problem) and increase of waste (third most important problem).

MOST IMPORTANT ENVIRONMENTAL PROBLEMS, ACCORDING TO RESPONDENTS



MOST IMPORTANT ENVIRONMENTAL PROBLEMS, ACCORDING TO RESPONDENTS



Civil society organizations in Ukraine play an important role in reforming the country. They work at international, national, and local levels. Ukraine's EU membership will empower civil society in the EU, and open new opportunities for environmental and climate change advocacy.

Civil society organizations working in the environment and climate related areas in Ukraine are highly diverse. They work on reforming environmental and climate areas, including all major areas of concern: from waste management to nature preservation. Many organizations have been actively promoting the principles and goals of the European Green Deal into the process of national and local environmental and climate policy making. Many organizations are members of European networks of environmental organizations or associations.

As of 2019, Ukraine had 272 active eco-NGOs (IRF, 2019). Ukrainian Climate Network includes 38 organizations, the specialized working group of the Ukrainian side of the Ukraine-EU Civil Society Platform has 51 organizations, environment and energy group of the Ukrainian National Platform of the Civil Society Forum of Eastern Partnership includes 20 organizations.

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The paper reflects the position of authors and does not necessarily reflect the position of the International Renaissance Foundation.

International Renaissance Foundation is one of the largest charities in Ukraine that has been supporting the development of open society based on democratic principles since 1990. Over the period of their activities, the Foundation has supported ab. 20,000 projects engaging into their implementation over 60,000 activists and organizations of Ukraine for the total amount of over USD 200 mln.

Website: www.irf.ua

Facebook: [www.fb.com/irf.ukraine](https://www.facebook.com/irf.ukraine)

Resource and Analysis Center "Society and Environment" is a non-profit think tank established in 2006 focusing on environmental policy and law research, capacity building and implementation of innovative initiatives in Ukraine and regionally (Eastern Europe, Caucasus and Central Asia).

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